

What's Your Style? Learning Styles in American Education

An Honors Thesis (HONR 499)

by

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Abstract

Learning styles have existed since as long as current college students can remember. They all know what their style is and how educators should alter their curriculum to match this type. However, it has been proven again and again that learning styles are not labels but modes of learning students can use to do better in the classroom. Through disproving the classic learning style interpretation and studying Howards Gardner's Multiple Intelligence Theory, one can deduce that it is possible to learn in several ways and it is even beneficial to do so. Take a look inside each style, how they play into the Theory, and apply them to the current debate surrounding school districts and their struggle to provide resources to students. I analyzed all of these factors and developed a campus wide program that brought the information to students, faculty, and the greater Muncie Community.

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Process Analysis Statement

The vision for this project has been in the process of coming to life since about May of 2018. I knew of the Honors Thesis assignment and that it would require a lot of work on my part to make it a reality. I wanted to be a part of a project that would not only mean something to my mentor and I, but also impact the community at Ball State. Similarly, I had friends participating in the 10 Star Diversity program created by Housing and Residence Life that allows student staff members to enrich their positions by exploring an area of diversity that they are passionate about to create an end project based around it. I thought the program was very interesting and I made it my mission to complete it by the end of my senior year.

As an Academic Peer Mentor (APM) for the Honors Living-Learning Community (LLC) I have been working with academics and students in higher education for two years now. The Honors students have been wonderful to interact with and get to know, especially through their majors and life goals. However, I knew that I was missing a larger piece of the puzzle. I rarely had any midterm deficiencies, where a student has two or more grades at midterms below a C-, or students who came to me needing academic advice or an on-campus resource. In reality, my position felt a little empty when I realized that my residents would not need me as much as I originally anticipated.

I wanted to explore a topic I was curious about that related to my job and that is was lead me to learning styles. I was under the impression that everyone had a learning style and that they learned best in that way no matter what. I was so excited I began doing research over the summer. My mentor and I began meeting in August and we knew that by the end of this semester we would be putting on a campus wide program to educate all of Ball State about our topic. I

quickly decided I would compare the several models of learning styles and why some included four, seven, or three.

The profiles were very interesting and detailed, which allowed me to learn about learning styles and how they interact with one another. Learning styles were ingrained in people and could not be changed and people should convert everything they do into one learning style. It was going very smoothly. It was not until I began delving deeper into research and past the glamorous websites that painted learning styles as nametags that I began to realize that learning styles were built on a lie.

It all started with my research into the Multiple Intelligence Theory. It was mentioned in an article I read surrounding learning styles in the workplace and I knew that I wanted the best, well-rounded history of how learning styles came to be. I came across a website that had not only taken down their quiz to discover which style you were, but wrote an article about why learning styles were false and should not be used in our society. Their reasoning was valid and the man behind the monster, Howard Gardner, had even spoken against them and explained how his theory was misinterpreted by so many, especially those in education.

I was crushed. My entire project I had been designing since May was being destroyed in November. I hit a road block and had to decide how I would move forward with a project that was built on falsehoods. I read more into the Multiple Intelligence Theory and why it was created to find the purpose behind its motivation. I went back through my notes about learning styles and what they were exactly. I spoke with my mentor about next steps and how to avoid this pitfall. Finally, after about a month I was able to find my saving grace.

The Multiple Intelligence Theory was created with the idea that people have all types of intelligence within them, but they are best at certain types and prefer certain types when taking

on information. I found a way to play off of that and transform my topic into something similar. I would take the approach that learning styles fall into a similar pattern and while students prefer to utilize a certain style when engaging with their classwork, they should learn how to use all of them to be the best and most adaptable learner while in college. It took me some time to put myself in this mode of thinking because I had been so set in my other project.

The subject never changed, but the details surrounding it needed to be updated to fit with current data and information. Due to the misconceptions that come with learning styles, it would have been very easy to put on a program with my original idea and no one would have known the difference expect me. The problem would have been that I knew the program was spreading false information and I would have never forgiven myself for letting that be promoted to students on campus. With my new(ish) project formulated, I was prepared to get back on track with my research and development.

After speaking more with my mentor about the project and where we could take it, I decided to include statistics and important facts about different school systems and the resources they use to teach students learning styles. I felt it was important to note that while it is great to be familiar with the seven I was focusing on; it is equally important to realize that lacking resources in schools can affect how students familiarize themselves with learning styles. I researched what resources schools tend to need the most and then how school districts can struggle to cut it with those resources.

I began to realize throughout compiling my notes that I came from a school system that never struggled like the ones I was presenting about. There were things I never liked or understood that we did, but I had access to all of my resources and more while some students were still fighting to have updated textbooks. I found a drive in myself to want to present on

these disparities not to just inform the public, but also to push them to want to do something. My project turned into a mission to upend a lot of misconceptions not only about learning styles but also our American Schools.

To put all of this into one program would make it bogged down and difficult to digest. I needed to find a way to relay all of my information in a way that would make people want to come and find out about it as well as remember it. I decided to create a poster board for every learning style and profile it not by the kind of person who usually preferred it, but by how the learning was applied in everyday life (Figures 4-10). I brought it back to Ball State Housing by including what majors are typically associated with the learning style and what Living-Learning Communities are over those majors.

I created a board about the school districts and what statistics I found about them to make it easy to understand for people reading the board (Figure 12). I gave basic explanations and an overview of the resources students need and why they are necessary. Finally, I created a ‘myth or fact’ board about learning styles in order to begin breaking down those biases and ideas of what people thought they knew versus what they are (Figure 11). To make the boards more interactive I developed a PassPort that required attendees to walk to every board and put a sticker in the appropriate spot (Figure 1). After reading the board they would be able to write an answer to a reflective question about the learning style to prove they read the board. At the end of the boards they could turn their PassPorts in as tickets for a prize drawing.

Another way to engage people with the program was to have a KaHoot! ready to play during the program to test what all they were learning. It asked specific questions about each learning style alongside the other topics covered and was a great way to solidify information. There was also People-to-People BINGO, which allowed attendees to find people at the program

based off of various characteristics and had to ask a question about a topic covered on one of the poster boards in order to have them sign the square. This would help start the conversations and get people talking to one another. There were also supplementary items such as giving advice to their younger selves about school or writing which styles they preferred on a sheet of paper that could also be a picture spot (Figures 13, 14).

There were three prizes to be given out from each game that were advertised to draw people into attending the program and staying to learn about my topic. I went the library and rented out a laptop and iPad to allow attendees without cellular devices the opportunity to take the quiz I found about learning styles and which they preferred over others (Figure 3). After they discovered their unique set of preferred styles, attendees filled out a nametag with their name and color coordinated stickers to the various boards so others could strike up conversations based off of their learning styles, whether similar or different (Figure 2). Everything was set up in a circle that made it easy to know what was going on and inviting to walk around.

The program was held on March 26th in the Park Multipurpose Room and it went very well. It was advertised mostly online with paper flyers hung in several academic buildings on-campus. Attendance was at about 30 students and they enjoyed what the program talked about. Every element was used and people came away learning something they did not know before. I spoke at the beginning with an opening speech as an overview of the program that set the precedence about what I was trying to achieve. It helped clarify why I was there, why everyone else was there, and what they could learn from it. About halfway through I also led a discussion about how resources could affect a student or a school district. The attendees were engaged and had great responses to the questions posed. We spoke about what it would be like to not have

certain resources or what would have changed someone as a student had their resources been altered in their personal school district.

I came away from the program pleased and fulfilled. I was glad to not only have attendance, because it was not an easy program to advertise, but also know that the attendees learned something. I was able to take my thesis off of paper and bring it to life, which was very important to me with this endeavor. My mentor was excited to see something I had been working on for months become a reality and proud that it went well. They were incredibly important in giving me insight and advice, especially in the most difficult times.

Through doing this thesis I learned that I am a very honest and honorable person. I would like to consider myself someone with these traits already, but I proved it during this project. It would have been much easier to keep my original project because there were plenty of sources to back it up and I had already done a majority of the work towards my final outcome. No one attending the program would have called me out or challenged me on any of my information. However, I knew that doing that would never make me proud of my project. Completing an Honors Thesis is not about doing something easy, but doing something right.

I changed my thesis, and while it was not a huge change, I am proud of myself for it. I discovered that I am someone who needs deadlines to work on extended projects like this one. I am not able to complete an essay without knowing when it will be due because I will allow other tasks to take precedence. There are many responsibilities lined up in my planner and if there is one that can wait another week, it will. I worked with and relied on my mentor a lot in order to complete everything to the best of my ability within the timelines that we set. It was easier to create our own deadlines ahead of time than wait around and allow me to work independently.

My learning process is quick and fast-paced. I like problem solving and finding new ways of looking at information, even if it stumps me for a month. I am very creative and I like planning out things that are detailed and meant to have an impact for the people who experience them. I have enjoyed creating my thesis more than most projects I have completed at Ball State and I am grateful for the opportunity to learn about something I had no idea was so misrepresented.

My thesis is a way for people to understand education through a unique perspective. It details how to be an adaptable learner and how outside factors can affect what learning you are able to complete, but overall it is a project about how to become a life-long learner. It is important to me as I leave my time at Ball State that I continue to grow and educate myself throughout my life. There is more to the world than is explored through twenty years of school and I wanted to find a way to promote others to want to discover more. This project is only the beginning for the long road ahead of me.

What's Your Style? Learning Styles in American Education

It is a natural human desire to categorize ourselves into boxes. When you meet someone in college, some of the first things they tell you are their hometown, Myers-Briggs type, and Zodiac sign. Learning styles have become a new category in education and they are convincing teachers everywhere to begin planning lessons around a student. According to a 2015 study by Deligiannidi and Howard-Jones, 97% of practicing educators in Greece believe a student's performance can be enhanced when material is delivered in an individual's preferred learning style (Deligiannidi and Howard-Jones). Students are being identified by their learning styles and from then on they are considered only capable to learn through that mode. Educationdegree.com published an article for future teachers detailing how to identify students of various learning styles and how to teach to them specifically over the course of a lesson, going as far as to say, "Unless you understand how each student learns best, you won't be able to help them learn at their maximum potential" ("The 7 Different Types of Learning Styles"). For lower grades of education this method may hold out, but by the time a student makes it to the college, learning will become all the more difficult for a student exposed to various methods of teaching for the first time in their life. Learning styles should not be considered concrete and used as an identifier of someone's personality because they are not biologically linked to people and can change over time; therefore, pushing students to learn to adapt to all styles is the most beneficial quality for them to develop because they will discover skills that allow them to become better learners, as proven in the study by Carney and Levin that over three decades proved that students understood textbooks better when paired with text and images (Carney and Levin).

According to Learning Styles Online there are seven main learning styles. Other models such as VARK, created by Neil Fleming, state that there are four learning styles, and the most

common model, VAK, describes only three possible learning styles. For my project I was looking for variety and chose to explore the seven style model. They are best known as Visual, Aural, Verbal, Kinesthetic, Logical, Social, and Solitary. Each has its own profile and specificities, but it is not impossible to use each and every style.

Visual learning is utilizing pictures, images, and spatial orientation to gather information. People who prefer this style tend to read maps better and have a good sense of color balance (“Overview of Learning Styles”). They like working with the way things appear and how they can change the meanings of a single image. These learners typically pursue majors such as architecture, photography, and design. To become better visual learners, students should incorporate more colors and pictures into their notes and projects. This creates something that is more memorable and easier to focus on than large paragraphs. Students can also use “mind maps” and diagrams to take themselves on a visual journey of the information and determine how it all links up with only images. Teachers should be utilizing chalkboards and whiteboards when teaching to hone in on main points (Chittom). For example, when teaching a literature class include a film adaptation to explore how the text was brought to screen and envisioned for the public. Visual learning includes anything from pictures to paintings and is important for students to see the subject as opposed to imagining it.

Aural learning is gathering information through sound and music. People who prefer this style usually are well versed in music or an instrument and notice rhyme patterns more often. They put information into song or poetic format to remember it better and are able to identify with moods in music (“Overview of Learning Styles”). These students typically pursue majors such as music education, music media production, and audiology. In order to become a better aural learner, students need to use their ears to focus in on what is happening. Playing music in

the background while studying can increase focus and change mood. Also tuning in to what people are saying and how they are saying it can be helpful to alerting themselves to changes in demeanor and tone. Teachers should be aware of their vocal inflection and getting students involved with speaking with one another about the topics for them to hear what is being said (Chittom). For example, when reading literature take some days to play an audio book and allow students to listen to what is really being conveyed through the words instead of reading it in their own heads. Aural learning is conceptualizing information in sound and the more a classroom has music and interactivity, the more students get a chance to utilize this style.

Verbal learning is both listening to others speak, reading, and writing down information. People who prefer this style have a passion for gaining knowledge through books and expressing emotion through words (“Overview of Learning Styles”). These learners typically pursue majors such as communication, journalism, and telecommunications. To improve in verbal learning, students need to practice their native language and use it in their day to day life and assignments. Speaking with others and noticing how inflection and language can change the meaning of something is crucial to understand this style. Teachers should incorporate class presentations and projects that encourage students to verbalize the information they have learned and be effective with their language and diction (Chittom). For example, when reading literature include a day when students will act out the scenes and speak to one another what the character is to build a sense of understanding and purpose of speech. Verbal learning is more than speaking, but knowing what the words mean and finding the hidden meaning behind language to truly understand a situation, and the more students get to experience this the more they can incorporate it into their own lives.

Kinesthetic learning relies on a sense of touch to learn subject matter. People who prefer this style need to move their body and interact with the information physically to retain it (“Overview of Learning Styles”). They enjoy activities ranging from sports to woodworking. They tend to pursue majors like dance, exercise science, and theatre. Improving kinesthetic learning requires getting involved with content and transferring it into something tangible. Using flash cards to study or models to learn orientation of objects will solidify a lesson by allowing a student to hold it in their hands. Teachers should include puzzles or physical representations to allow students to interact and feel the lesson rather than passively watching it (Chittom). For example, when teaching students about addition and subtraction give them objects to add and subtract with to understand how the concepts work automatically, not in retrospect. Kinesthetic learning is engaging with lessons actively and understanding where information goes and how it works directly in real life, which students can use to gain a deeper value for simple systems and tasks.

Logical learning is identifying order and patterns throughout information. People who prefer this style are organized and enjoy classifying objects into groups (“Overview of Learning Styles”). They like formulas and calculations much more than an undetermined plan. They pursue majors like accounting, legal studies, and nursing. To improve logical learning students need to practice organization and breaking down data into its basic parts. The groups and reasoning behind something matters in the bigger picture as well as also needs to be able to be put everything back into a larger classification. Teachers need to give students opportunities to link information and find the similarities and differences that make something what it is (Chittom). For example, when beginning a lesson about animals, have students group the animals in various ways based on several characteristics to know how alike they are. Logical learners

thrive in organized and functioning environments and students should learn these skills to know how to manage people, objects, and information.

Social learning is absorbing information based off of others. People who prefer this leaning style like to communicate with others and get a well-rounded picture of the subject at hand (“Overview of Learning Styles”). They are personable and care what others have to say. These students typically pursue majors such as criminal justice, elementary education, and public relations. Improving social learning requires paying attention to people and how they act around you and others. Making the most of collaboration and group projects will help students tune in to thoughts and feelings different from their own. Teachers should encourage students to get involved outside and inside the classroom with others and get to know students as people first (Chittom). For example, when reading literature students should be put in reading groups to talk about the material and what it means because every student will see it a little differently and learn from one another. Social learning is more than speaking with people, but finding a common goal to work towards and many students will at one point or another need to work with people to complete a task.

Solitary learning is studying information independently. People who prefer this learning style are introspective and understand themselves very well (“Overview of Learning Styles”). They challenge themselves to come up with the answers on their own and have the drive to pursue what they want. They tend to go for majors like creative writing, English, and history. To improve solitary learning students need to reflect on themselves to understand thoughts and feelings. They will learn what drives them and how their thoughts influence what decisions they make. Teachers should ask questions to engage students and bring their thoughts into the classroom to share with others (Chittom). For example, when assigning a presentation, ask

guiding questions afterwards to get a student's perspective on what they presented and the reasoning behind it as opposed to taking the presentation at face value. Solitary learning is understanding the self and internal thoughts, but that does not mean that students cannot bring these thoughts to life and should be encouraged to do so with projects and discussions.

Each learning style holds its own place in the realm of learning, but can be combined alongside any of the others within a person. People would not be whole if they solely learned through only one of these perspectives because it would be nearly impossible to succeed in classrooms where some styles are not utilized. In a perfect world, every classroom would have a piece of each style, but with multiple classes at a time students are still able to engage with every one at some capacity. If a subject is difficult, they can bring a style they prefer into the classroom through how they take notes, complete homework, and present projects.

Howard Gardner felt very similarly about this diversity of learning, which is why in 1983 he published his book Frames of Mind: The Theory of Multiple Intelligences. The book goes into detail about how all people have different kinds of "intelligences", defining eight in total (Cherry). Someone can have particularly high intelligence in one category, but also holds intelligence of all types. While the theory lacks much empirical data, educators have found it very helpful in understanding their students and education as a whole. "The good news is that the theory of multiple intelligences has grabbed the attention of many educators across the country, and hundreds of schools are currently using its philosophy to redesign the way it educates a child," ("Multiple Intelligences"). This theory has helped alter education for the better and while some schools are still behind in this transformation, they are catching up quickly.

The various intelligences someone holds are visual-spatial, linguistic-verbal, logical-mathematical, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic (Cherry).

If these sound familiar, that is because the learning styles are based off of this theory. Each of these intelligences refer back to multiple characteristics of their learning style counterpart. It functions much in the same way as the Greek and Roman gods. Gardner developed this theory after the IQ test was popularized, which tested children's intelligence against one singular factor. "I was struck by the virtual absence of any mention of the arts in the key textbooks," (Gardner) A piano player himself, this idea of being able understand the arts and not carry intelligence about it was wrong. He quickly discovered while he studied psychology that the larger intelligence everyone was being compared to was unrealistic compared to our real world. "Many of these kids, in fact, end up being labeled "learning disabled," "ADD" ("attention deficit disorder"), or simply underachievers, when their unique ways of thinking and learning aren't addressed by a heavily linguistic or logical-mathematical classroom," ("Multiple Intelligences"). Students who want a more active and involved classroom instead found themselves isolated from their classmates because they were not intelligent in the same ways and it was difficult for them to focus and do well academically.

The projects and talents people displayed were largely a combination of intelligences rather than a singular variation of how smart they were. "We all have these intelligences, that's what makes us human beings, cognitively speaking," (Gardner) Since the theory has come out, it has become entangled within education and misinterpreted. Nowadays teachers are finding ways to use the theory and learning styles to isolate students. Brighthubeducation.com suggests sitting visual learners in the front of the classroom while speaking more with aural learners to ensure they get the information they need (Chittom). Teach.com instructs educators to observe students in order to gauge their learning styles and pander education to that style without providing a test to find such information out and instead gives qualities to look for, leaving the interpretation

entirely up to the educator (“Learning Styles”). Resources like this suggest teachers find what each student “needs” rather than operating their classroom as open and dynamic spaces for all learning types for students to experience. The idea of multiple intelligences has been twisted by society to put learners into boxes based off of which category they prefer or are thought to prefer and thus brings back the idea of a singular intelligence that Gardner was trying to avoid. The only difference is now there are eight possible singularities.

Gardner spoke out in 2013 about this misconception, stating “the concept of learning styles is fatally flawed,” (Strauss) Learning styles are not biologically linked and can hinder students from learning subjects to their full potential. A student is forced to choose between the options and must commit to learning in only that manner. The study conducted over thirty years by Carney and Levin about pictures in textbooks proves that students learn from reading better when images complement the text, proving that multiple learning styles are at work and can develop information absorption much better than simply one or another. Using more than one mode to teach information makes it easier to retain and use in performance on tests and evaluations.

Despite the research, educators continue to believe in the myth. According to Paul A. Howard-Jones, “The brain’s interconnectivity makes such an assumption unsound, and reviews of educational literature and controlled laboratory studies fail to support this approach to teaching,” (Howard-Jones) It has never been proven to be an effective way to educate, but now that it has become such a hot label to know for teachers and students alike. A study by Husmann and O’Loughlin discovered that many in a group of anatomy students found the concept of learning styles legitimate. They analyzed the test scores of students and found no improvement with utilizing their preferred learning style. Instead, it was found that when students used

multiple ways of studying and learning, they learned just as well if not better overall. It was more useful for every student to use the microscope than only allowing those with certain learning styles and pushing the other students to find another resource better suited for them.

Major issues that have arisen since the popularity of learning styles broke out are creating lessons individualized per a student's learning style. Within the classroom teachers are evaluating what learning style the student prefers and then funnel all information to that student in only that manner. It is important to note that while students may prefer one learning style over another, it is not the only way that they are capable of learning. Learning styles do exist in the way that they are possible ways of picking up information. However, in order to ever truly learn a student must employ multiple learning styles to absorb the information completely.

The danger that arises with only exposing a student to one learning style, especially at a young age, is that they will only know how to absorb information in that way. Their preferences turn into a crutch. A 2015 study by Bui and McDaniel about lectures and diagrams found that students have a much deeper understanding of a lesson when they use both methods as opposed to one or another when teaching a lesson. Students were given an outline, diagram, or nothing at all and a test at the end to test their recall and short answers. The students with the outline and the students with nothing did significantly worse than the students with the diagram. They were able to use both aural and visual learning to impact what they remembered for the tests. This is yet another proof that when learning styles come together students have an easier time grasping concepts and utilizing them for other purposes.

Gardner even recommends giving students multiple ways to access the information. The lessons will be overall engaging and students will be much more likely to remember them when it comes time to use the information. Also, while it is important to teach in various ways, that

does not mean that individualizing lessons is a bad thing. “An approach to academic instruction that is responsive to each student’s needs, helps to create a school community where students gain not only a strong academic education but also the self-confidence, emotional maturity, and social skills needed to succeed,” (“Instruction Tailored to Students’ Needs and Interests”) Not every student comes from the same home life and is always ready to learn and engage due to outside factors in their lives. This is known as equity in education and provides students with the resources they personally need to achieve in the classroom dependent on life circumstances. It helps students want to be in school and achieve while they are there, but does not differentiate them by how they learn but supports them when they most need it.

According to Educate a Child, there are three main resources a student needs to succeed in school: human, material, and financial. Human resources are the people in the student’s life, including administrators and family members. “Study after study shows that quality teaching is the most powerful factor in student learning,” (“Resources”) Teachers are on the frontline and as a result are expected to provide emotional, organizational, and instructional support to students. This ranges from positive connection to behavior management to give students a safe place to learn and make friends outside of their normal lives. According to Organization for Economic Cooperation and Development, “A competitive examination is required to enter the teacher profession for primary and secondary school,” which divides up and determines who is qualified to educate students in the United States (“Resources Invested in Education”). They are just as valuable in a student’s educational career as the influences at home and in the community.

Material resources are what students have access to such as blackboards and notebooks. The availability and quality of these materials can affect how students view education (“Resources”). Due to location and funding, schools may not be able to bring in or afford

materials that would supplement lessons. Sometimes these materials are necessary and a lack of supplies for them can result in students not comprehending lessons and understanding them to their full capacity. According to Organization for Economic Cooperation and Development, “What matters for student achievement and other education outcomes is not necessarily the availability of resources, but the quality of those resources and how effectively they are used” (“Resources Invested in Education”). Not having appropriate materials disincentivizes a student to participate and complete school, especially when the resources are outdated and unusable.

Financial resources are how education receives funding from its providers. Depending on where an education system is located, receiving the same percentage of funding as another system may result in very different numbers because their providers do not have the budget (“Resources”). This resource may be how students get to school or stay in school and can impact why they stay until completion. According to Organization for Economic Cooperation and Development, “Financial resources can be allocated to salaries paid to teachers, administrators and support staff; maintenance or construction costs of building and infrastructure; and operational costs, such as transportation and meals for students” (“Resources Invested in Education”). It funds every part of the school from salaries to the facility and what is provided will be distributed per the district’s decisions. It also determines where and how many schools are available to the population and how many students they can serve appropriately with their given budget.

These resources all play into one another and are necessary to promote a positive learning environment. School systems face their own trials with these resources in America. Rural schools often lack financial and material resources needed for the classroom. “Many rural schools and districts face vastly inequitable funding and simply cannot provide the

opportunities,” (“New ‘Why Rural Matters’ Report Now Available”) Parents often move to rural school districts because they are attracted to the smaller setting, personal attention, and the strong sense of community and identity. These students range in diversity with more than one in four being a student of color (“New ‘Why Rural Matters’ Report Now Available”). 8.9 million students are enrolled in rural school districts, which means: more than one in four of our country’s schools are in rural areas and one in six students attend a rural school (“New ‘Why Rural Matters’ Report Now Available”). That is a huge portion of our population being educated in these school systems.

It can be difficult for our policy makers to develop changes and improvements that serve rural areas because they are typically from suburban and urban areas and have experiences with those dilemmas. Many of these rural school districts are very small, with half of rural school districts in 23 states enrolling less than 485 students (“New ‘Why Rural Matters’ Report Now Available”) and the average being 354 (Riser-Kositsky). However, investment per students in school can range anywhere between \$4,400 and \$12,000 depending on the state (“New ‘Why Rural Matters’ Report Now Available”). Alongside this, pay for the educators is often low and can make finding quality teachers more difficult. These areas typically find it difficult to already find teachers who are experienced in special education, English language learning, science/technology/engineering/math, foreign languages, the arts or teachers who are male or of color. Rural students cannot learn to the best of their ability without the financial or material resources needed to do so.

On the other side of the spectrum, urban schools face many of trials similar and different to these. These districts tend to lack more in human resources necessary for their students. About two-thirds of children enrolled in urban schools are nonwhite, but that figure is typically around

80% (Schneider). Students often come from persistently disadvantaged households and are surrounded by adults who have low levels of education and limited professional prospects. These conditions alter the attitudes students have towards education and how they envision what their futures will be.

These effects can be seen in what students are prioritizing and participating in come high school. One in four students who began 9th grade in 2009 did not graduate high school in four years (Superville). Also, less than 15% of all high school students took the ACT/SAT in 30 of 50 cities. They average size of these schools is 591 (Riser-Kositsky) and they are operating in extremely highly populated areas that try to serve many more students than rural or suburban schools. The average low-income student attends a school where two-thirds of the student body is also low-income (Schneider). Finally, these schools are “bombarded with so many instructional initiatives and approaches that they become fragmented,” (Ahram, et al). Education for urban schools is challenging because they find it difficult to foster a culture of academic success among adults and other children who influence the students in various ways.

Suburban schools tend to be the best at providing all three of these resources consistently. The average school size is 657 students and the majority of public school students attend these institutions at a rate of 39.7% (Riser-Kositsky). Two-thirds of students are white and a majority of them are not in poverty (Schneider). They are also much more likely to have parents with college degrees. These students tend to come into education with a much more positive perspective on it and are equipped with the behaviors and attitudes needed to succeed academically. Due to allocation of funding, these schools are able to start a new school or educational program without closing an existing one (Gill, et al).

Historically, the suburbs offer higher teacher salaries and are able to draw in the most experienced teachers (Gill, et al). However, like all things there are changes coming for suburban schools. Families are moving from urban and rural schools to suburban areas and presenting new challenges. These schools are facing students from new demographics that are not usually found among suburban school districts and are being forced to find new ways to support them. It is possible for suburbs to be “dominated by ‘legacy’-groups- families with longstanding ties and a history of civic activism. These leaders may want to keep issues they consider low priority (e.g. education of non-native speaking children) off the public agenda,” (Gill, et al). How the districts plan on solving these issues will determine the future of suburban education.

Due to these three main resources and the lack thereof, it can be difficult to give students access to learning styles. While each can be maintained with a low budget and careful planning, sometimes even that can be interrupted for something else happening in the school. It is important that no matter the school district or resources available, schools try to provide well-rounded education that includes all styles. This is the best way to ensure that students will truly engage and remember the information to advance on to other levels of education and continue to learn throughout their lives.

In conclusion, learning styles are not labels that should be used to categorize students, but a means of picking up and carrying information that the students prefer. They are derived from the Multiple Intelligence Theory, which tells us that people can be intelligent at multiple things and should not be compared to one another (Cherry). Classrooms should push to utilize all learning styles to ensure that students have the best chance at learning all of the information. It is possible that given the resources certain school districts are provided, not all learning styles are easily achieved in the classroom. This can cause a disparity of how students learn to learn and

can be difficult to make up for when students arrive at high school and college and are unsure how to best prepare themselves for class.

Many of the hurdles educators and students face to provide and receive the best education there is are conflicts that have existed for years. Breaking down stereotypes around learning styles and promoting the difficulties facing school districts today can help to combat these inequalities and provide a new vision of possibilities surrounding how we as people can learn and advocate for ourselves and others in the battle for equitable education. It begins with breaking down the learning style myth and replacing it with the truth about what a learning style really is and where it fits in the classroom. After that it is becomes possible to focus on where the resources to support this move in education are and how school districts can maximize them to provide students the best they can possibly get.

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Supplemental Images



Figure 1

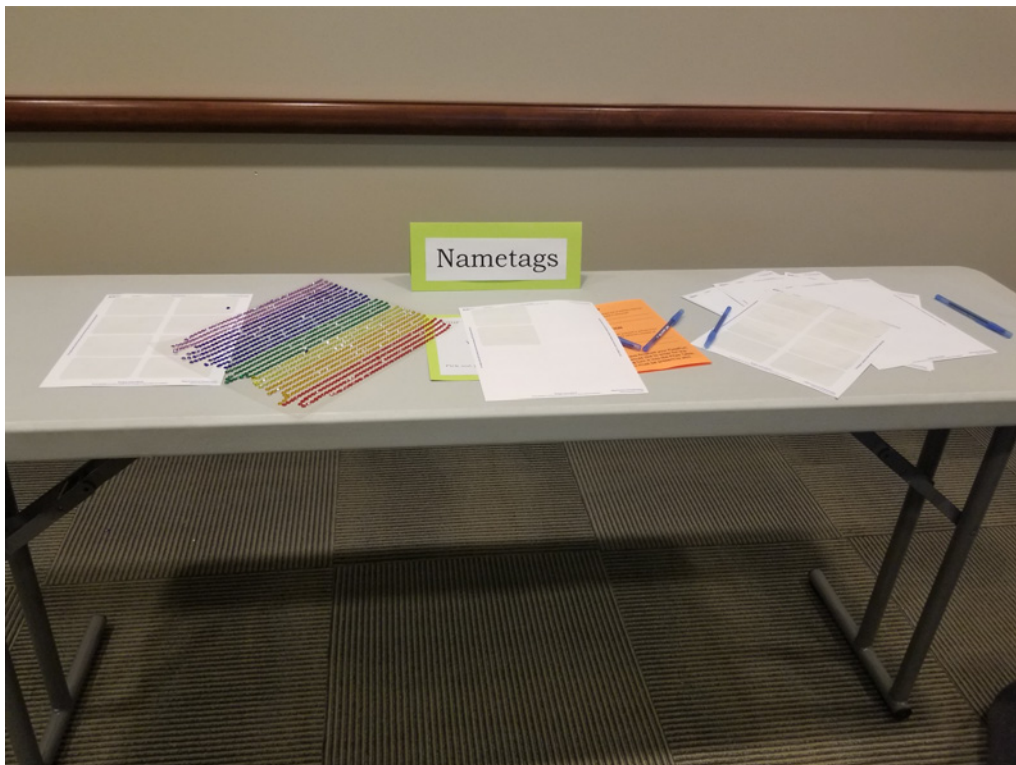


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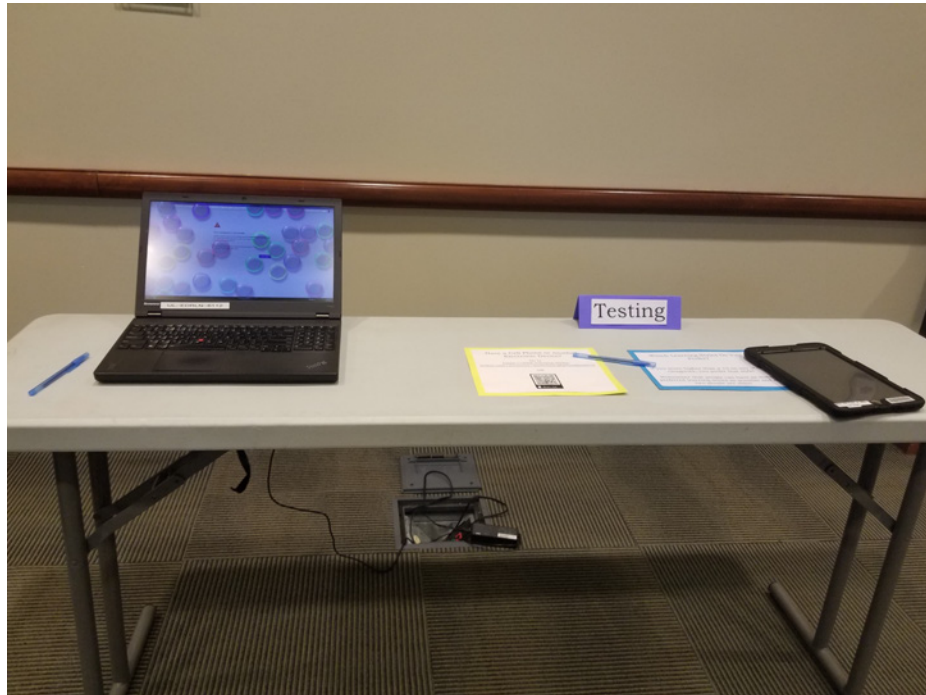


Figure 3

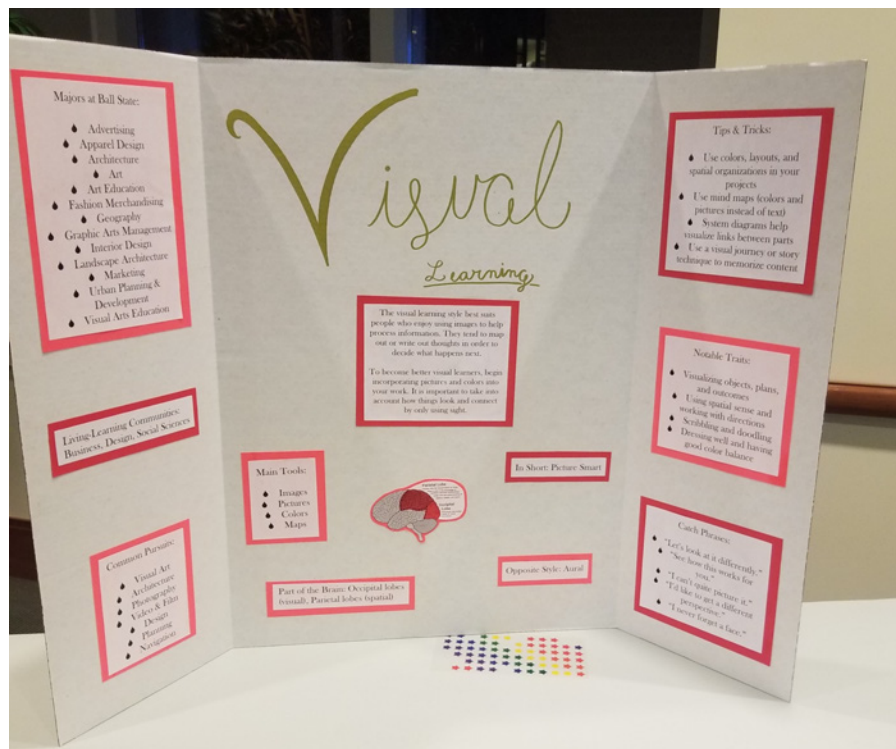


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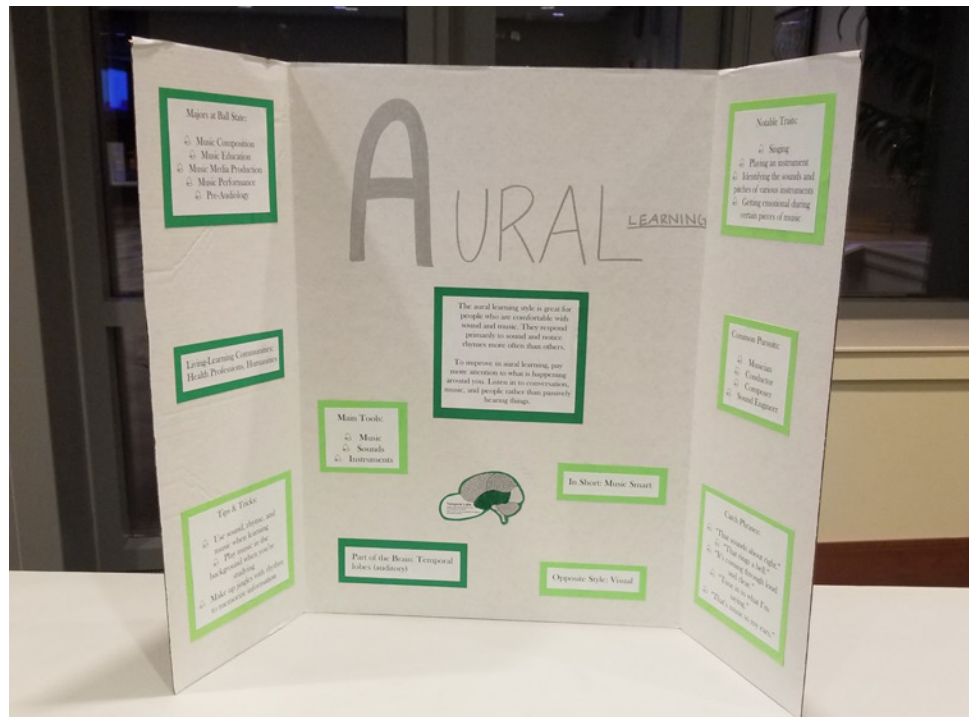


Figure 5

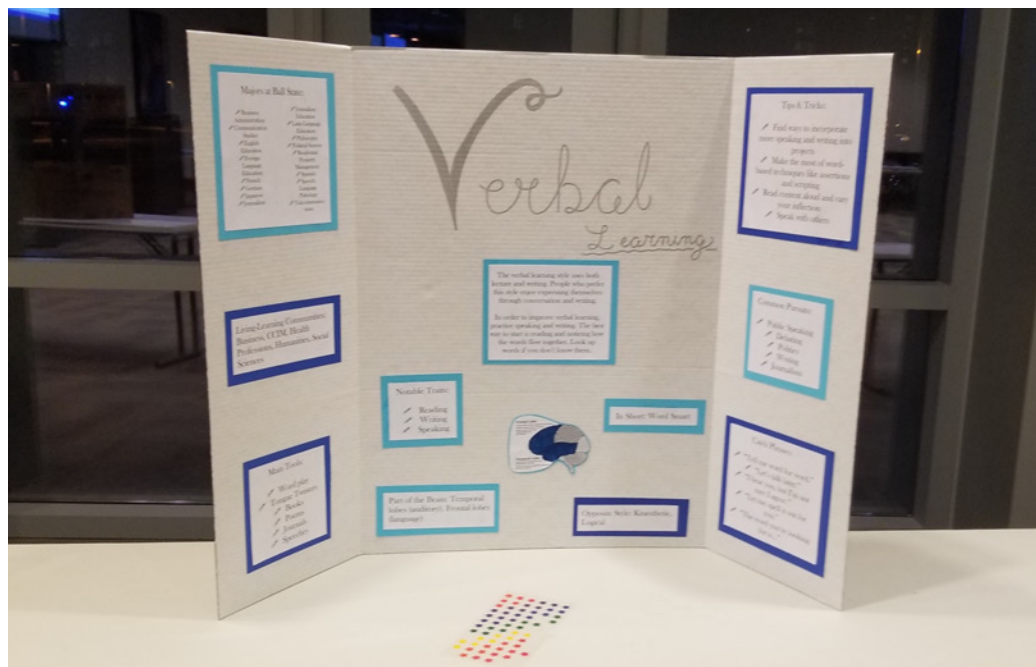


Figure 6

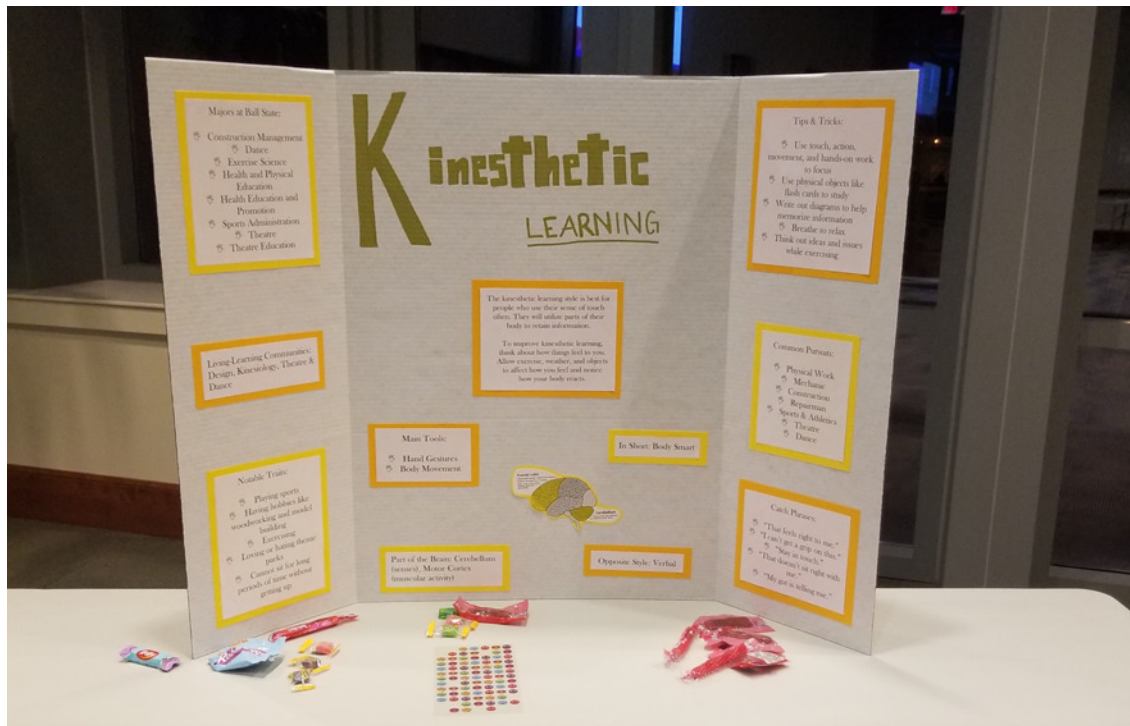


Figure 7

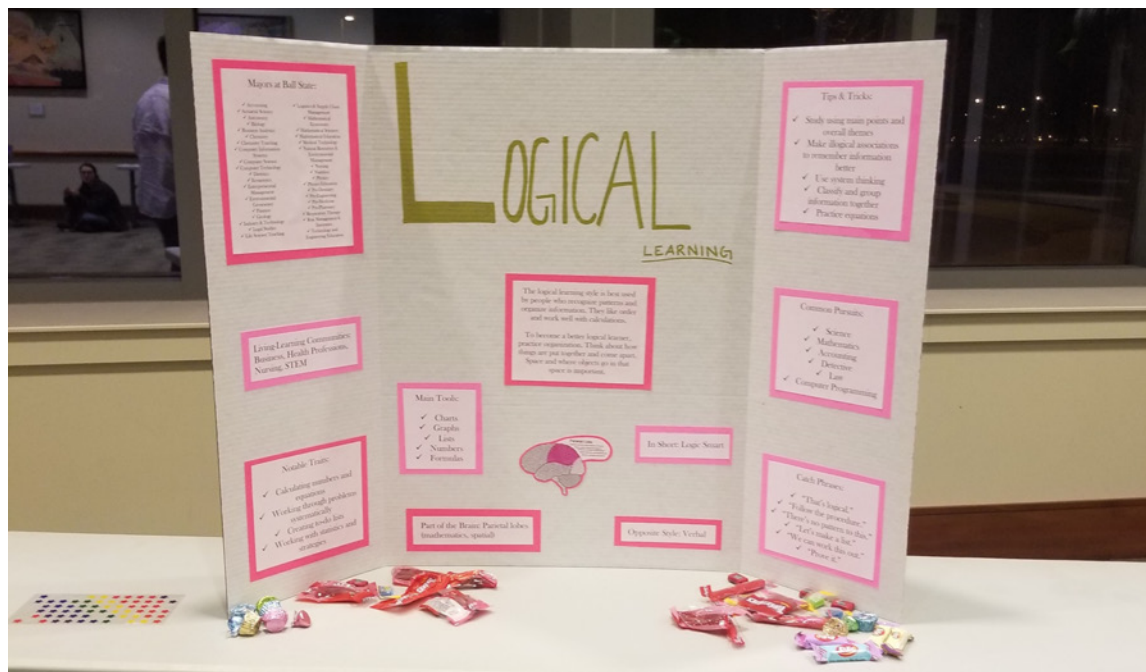


Figure 8

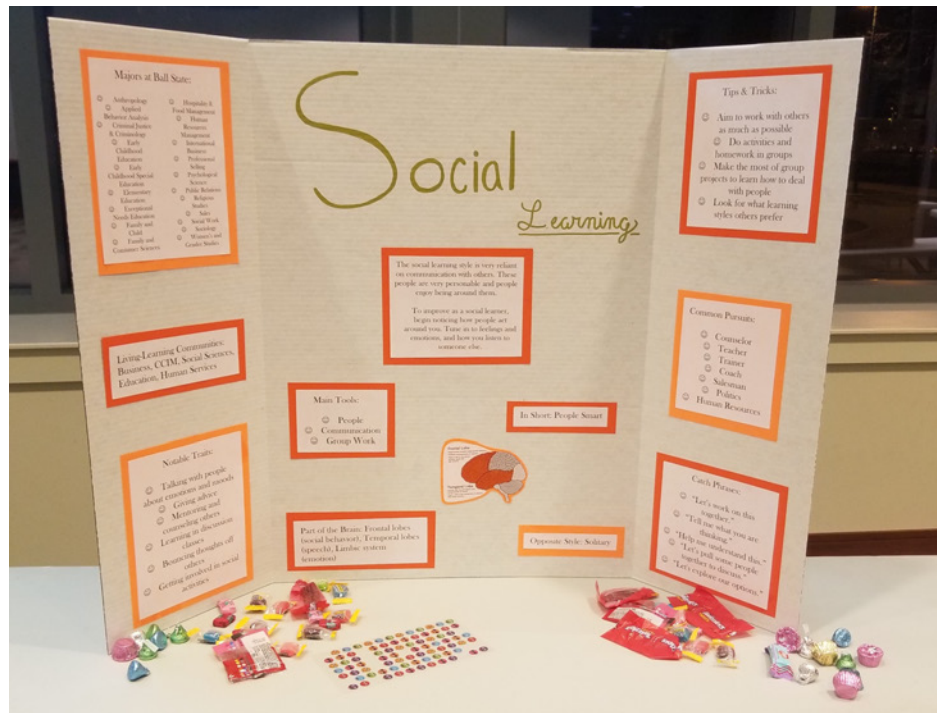


Figure 9

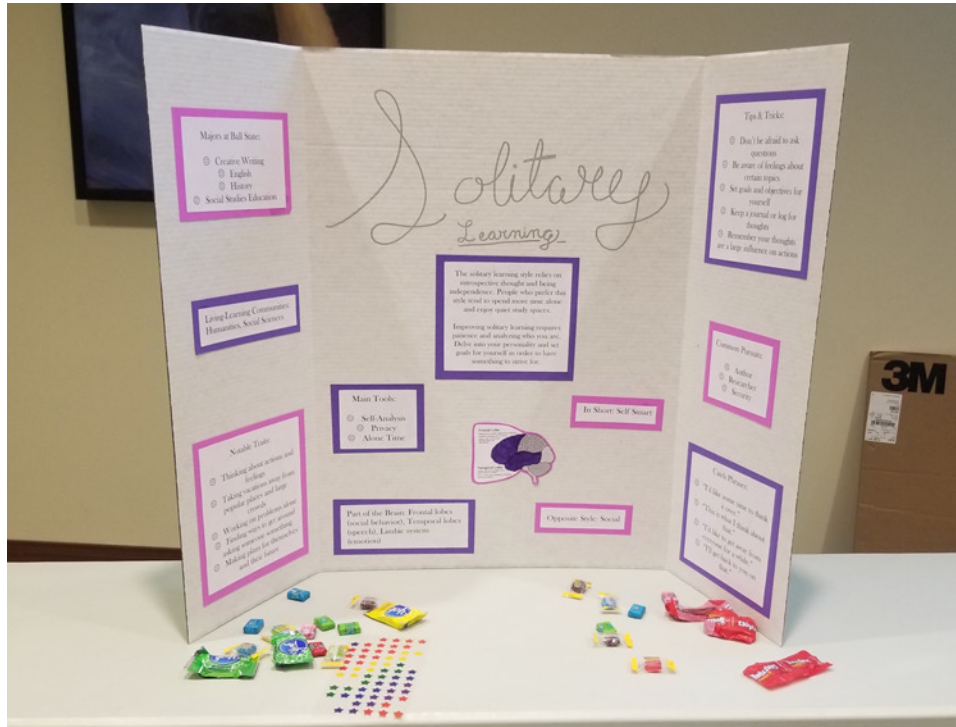


Figure 10

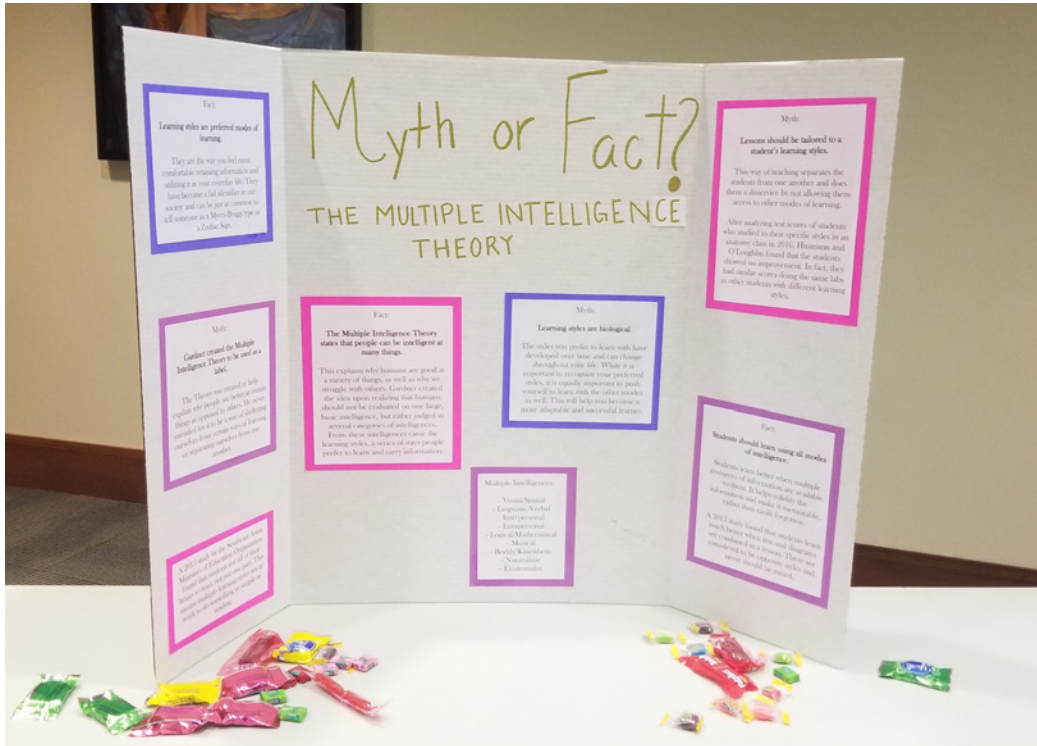


Figure 11

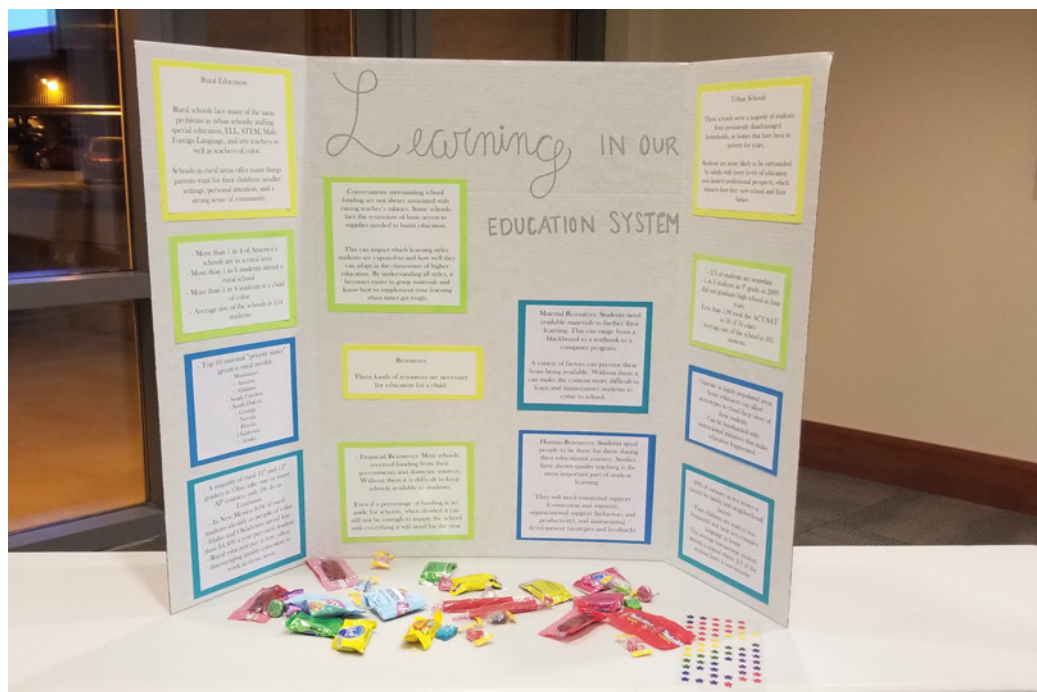


Figure 12

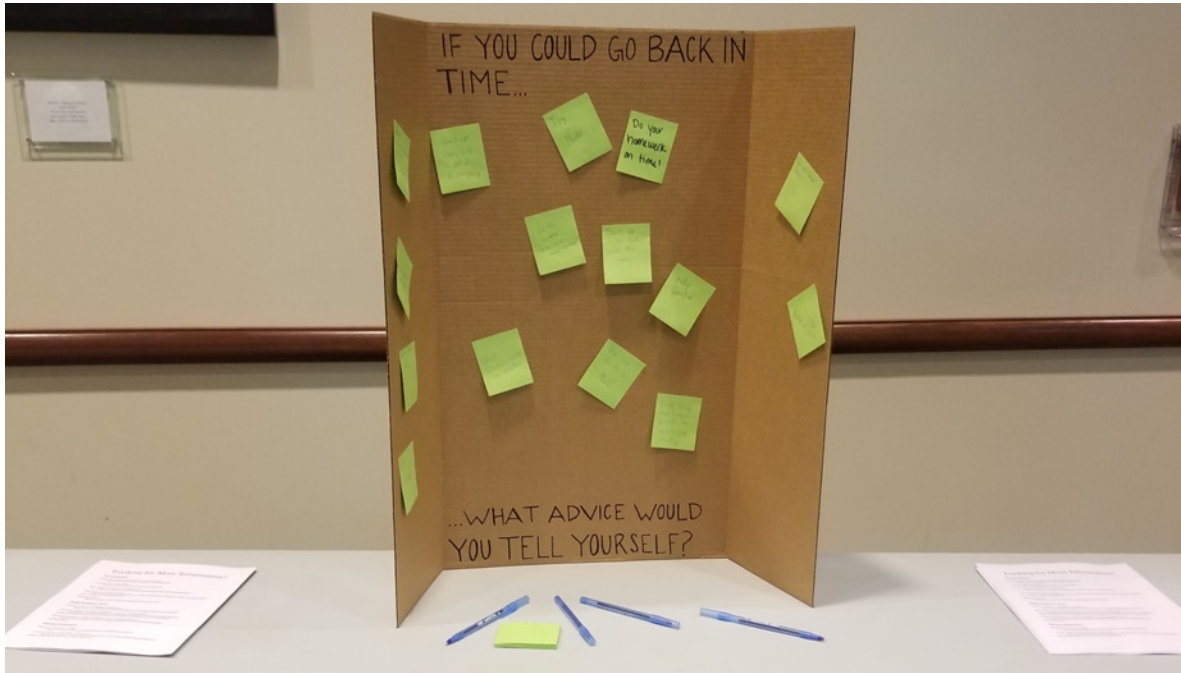


Figure 13



Figure 14